

## CLAIMS

What is claimed is:

1. A method for transmitting packets among processing nodes within a data processing system, wherein said data processing system includes a plurality of processing nodes connected to each other via an interconnect, said method comprising:

initiating a request transaction from a master node to a plurality of receiving nodes;

generating a write counter number to be associated with said request transaction;

receiving a combined response from said receiving nodes by said master node;

sending a data packet from said master agent to an intended one of said receiving nodes according to said combined response; and

initiating a new request transaction, along with a new write counter number, immediately after said data packet has been sent without waiting for an acknowledgement from said intended receiving node.

4. The method of Claim 1, wherein said data processing system is a symmetric multiprocessor system.

1        5.     An apparatus for transmitting packets among processing nodes within a data  
2        processing system, wherein said data processing system includes a plurality of processing  
3        nodes connected to each other via an interconnect, said apparatus comprising:

4                means for initiating a request transaction from a master node to a plurality  
5        of receiving nodes;

6                means for generating a write counter number to be associated with said  
7        request transaction;

8                means for receiving a combined response from said receiving nodes by said  
9        master node;

10               means for sending a data packet from said master agent to an intended one  
11        of said receiving nodes according to said combined response; and

12               means for initiating a new request transaction, along with a new write  
13        counter number, immediately after said data packet has been sent without waiting  
14        for an acknowledgement from said intended receiving node.

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